

Turner's Genera of Thynnidae with notes on Ashmeadian Genera.

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The *Thynnidae* have, until recent years, been one of the neglected families of Hymenoptera. This has been due largely to the fact that they are confined almost entirely to the Southern Hemisphere, and seem to be more numerous in Australia. The appearance of the one hundred and fifth fascicule of the Wytsman's Genera Insectorum, which contains the genera of *Thynnidae* as defined by their champion, Mr. Rowland E. Turner, is a great boom for this neglected family. Hymenopterists in general, and more especially students of *Thynnidae*, are very grateful to Mr. Turner for this contribution to our knowledge of this interesting, though difficult, family.

The character of the various parts of Genera Insectorum varies greatly, but Mr. Turner's may be classed among the best. This fascicule contains sixty-two pages and four plates, two of which are colored. Of the fifty-three genera of *Thynnidae* thirty-two are figured, and no less than fifty species are figured in part or in entirety.

Mr. Turner divides the Thynnidae into three sub-families, Diamminae, Rhagigasterinae and Thynninae. His classification differs from that proposed by Ashmead in a number of ways, and it seems that the arrangement proposed by Turner is a more natural one, although it is hard to tell until the entire group has been thus tabulated.

It is pleasing to see that Mr. Turner has chosen to divide the species into small well defined genera. With the number of described species increasing by the thousands it is almost necessary that the limits of the genera be more closely drawn than in days when only comparatively few species were known.

One of the star features of this fascicule of the Genera Insectorum is that the types of the genera are indicated. The fixing of genotypes is absolutely necessary in taxonomic work, and it is hoped that in the future the editor of the Genera Insectorum will insist on this being done for all fascicules.

It is a great deal easier to criticize work done by others than to do the work oneself. It is, however, not with the idea of criticizing that the following notes, on this admirable paper of Mr. Rowland E. Turner, and remarks on Ashmeadian genera are given. W. H. Ashmead was the first to attempt a detailed classification of the genera of Thynnidae and two of his genera were founded on species only characterized in his generic tables. These genera have been treated differently by Mr. Turner, but in neither case have they been characterized correctly. For this, one cannot blame Mr. Turner. It is hoped that the following notes will put the Ashmeadian genera on a firmer basis.

In some few cases the ruling of the International Committee on Zoological Nomenclature has not been followed by Mr. Turner. To these cases attention will be called and what is believed to be a correct interpretation given.

It will be noted that in certain cases the synonyms have been omitted from the list of species so the synonymy is not complete. The following omissions are to be noted:

Agrionomyia (*Tachynomyia*) *spinolae* Guérin, (a species named as the genotype of *Tachynomyia*, by Ashmead), and *Thynnus fervidus* Erichs. should be placed as synonyms of *Tachynomyia abdominalis* Guérin, p. 27. *Thynnus plagiatus* Sm. should be included in the synonymy of *Eucyrtothynnus maculipennis* (Guérin), p. 25.

Thynnus (*Elaphroptera*) *holomelas* André should be included as a synonym of *Elaphroptera intaminata* (Smith), p. 23.

The naming of a described species as a type of a new genus without telling the genus in which it was originally described, causes trouble for other workers.

Some of the characters given in the generic keys are not as definite as one would like, and it is hoped that in a later paper Mr. Turner will tell us what is "very near" and what is "not very near" (p. 15, category 30). A comparison between the length of the second transverse cubitus and the distance of the second recurrent from it would be very serviceable here. "Ventral aspect" instead of "beneath" (first part of category 37, p. 16), would avoid ambiguity. Yet these are minor points, and

when it becomes necessary to use such minor points to find fault with a work, it must be of a high character.

Thynnidea Ashmead = **Thynnoides** Guérin.

Thynnoides Guérin, Voy. Coquille Zool. II, 2, p. 214, 1830.

Type—*Thynnoides fulvipes* Guérin.

Thynnidea Ashmead, Can. Ent., p. 98, 1903.

Type—*Thynnus fumipennis* Westw.

According to Mr. Turner *Thynnus fumipennis* Westw. and *Thynnoides fulvipes* Guérin are congeneric so *Thynnidea* Ashmead is a synonym of *Thynnoides* Guérin.

Neozeleboria n. n.

Zeleboria Turner, Gen. Insect. Fas. 105, p. 32, 1910. Not

Zeleboria Saussure or Ashmead.

Ashmead in CAN. ENT., p. 102, 1903, fixed the type of *Zeleboria* Saussure as *Thynnus carinatus* Smith, a species originally included; Turner preferred to use *Thynnus sexmaculatus* Smith which is not congeneric with *Thynnus carinatus* as the genotype, therefore, a new name is necessary for *Zeleboria* Turner. For this group the name *Neozeleboria* may be used. A species once designated as the type of a genus must always remain the type.

The type of *Neozeleboria* is *Thynnus sexmaculatus* Smith.

Zeleboria Saussure = (**Glaphyrothynnus** Turner).

Thynnus carinatus Smith and *Thynnus xanthorrhoei* Smith, the genotypes of *Zeleboria* and *Glaphyrothynnus* respectively, are congeneric so *Glaphyrothynnus* Turner is a synonym of *Zeleboria* Saussure.

Aelothynnus Ashmead (non Turner).

Type of the genus: *Aelothynnus multiguttatus* Ashmead (original designation), CAN. ENT., p. 101, 1903.

Female.—Unknown.

Male.—Clypeus convex basally, broadly produced in the middle, truncate at the apex; labrum rather broadly triangular, subequal in length to the apical width, broader apically, with a median V-shaped notch; maxillary palpi 6-jointed, the basal joint small, the remaining joints long, the second but little shorter than the third, the third and fourth

subequal and slightly longer than the subequal fifth and sixth; labial palpi 5-jointed, the basal joint small, the second joint slightly longer than the remaining subequal ones; no process between the bases of the antennae; antennae slender, nearly of equal width throughout, the apical joints slightly arcuate, the third joint much shorter than the fourth, antennae when stretched posteriorly reach nearly to the apex of propodeum; pronotum about two-thirds the length of the scutellum, sharply truncate anteriorly; propodeum rounded laterally, not sharply oblique from the metanotum; anterior coxae with the ventral aspect not concave; second recurrent vein about half the length of the second transverse cubitus from the base of the third cubital cell; tarsal claws with a tooth near apex; gaster elongate, smooth, no constriction between the segments; ventral segments without spines; hypopygidium nearly twice as long as the width at the apex, gently widening apically, bounded laterally by strong ridges which join with the lateral teeth, median tooth longer and more slender than the lateral ones, a prominence in the basal middle; seventh dorsal segment not flattened or produced.

In Turner's table this runs to *Elidothynnus* Turn., but differs from his description by the 5-jointed labial palpi, and differently shaped hypopygidium.

***Aelothynnus multiguttatus* Ashmead.**

Can. Ent., p. 101, 1903.

The characters given by Ashmead in his table of the genera of Thynnidae (CAN. ENT., June, 1903), are sufficient to satisfy the technical requirements so this species should date from that time and be accredited to Ashmead. The following characters may aid in its determination.

Male.—Length 7.5 mm. Clypeus shining, impunctate; front confluent punctured, the upper part more sparsely so; posterior orbits and vertex shining, almost impunctate; fourth antennal joint slightly shorter than the fifth; anterior face of the prothorax shining impunctate; pronotum, mesonotum, scutellum, mesopleurae shining, with distinct well separated punctures; propodeum rather closely punctured, punctures in some places confluent so as to appear striate; apical dorsal segment irregularly punctured; lateral lobe of the hypopygidium, triangular, obtusely rounded. Black; base of mandibles, clypeus except a median spot, a spot at the inner base of each antenna, narrow inner orbits to near top of eye, line on posterior and anterior margin of pronotum, tegulae, a line below spot on scutellum, metanotum (postscutellum of authors), a spot above the middle and posterior coxae, spots on lateral apical dorsal angle of first segment, a band on apical dorsal

margins of segments 2-5 interrupted in the middle and broadly dentate laterally, and spots on ventral, apical, lateral angles of segments 2-5, yellow; legs below the femora testaceous. Wings clear, iridescent hyaline; venation testaceous.

Type locality—Australia. Two males collected by Mr. Koebel.

Type—Cat. No. 13,204, U. S. N. M.

Turnerella n. n.

Aelothynnus Turner, Gen. Insect. Fas. 105, p. 39, 1910; and other references; not Ashmead, Can. Ent., p. 101, 1903.

Turner considering that *Aelothynnus multiguttatus* Ashm. was undescribed named *Thynnus cerceroides* Sm. as the type of *Aelothynnus*. *Aelothynnus multiguttatus* Ashm. and *Thynnus cerceroides* Sm. are not congeneric, which leaves *Aelothynnus* Turn. without a name. For this genus the name *Turnerella* may be used.

Type of *Turnerella* is *Thynnus cerceroides* Sm.

Guerinius Ashmead = (**Tachynothynnus** Turner).

Guerinius Ashm., Can. Ent., p. 100, 1903.

Type—*Thynnus flavilabris* Guérin (original designation.)

Tachynothynnus Turn., Gen. Insect. Fas. 105, p. 50, 1910.

Type—*Thynnus shuckardi* Guérin (original designation.)

The characters given by Ashmead for the genus *Guerinius* do not agree with genotype.* This caused Turner to place *Thynnus flavilabris* Guer. in his genus *Tachynothynnus* and consider *Guerinius* Ashm. as unknown. In this, however, he was wrong for the type of a genus once being named remains the type regardless of what the author had before him. The species Ashmead had before him called *Thynnus flavilabris* is *flavilabris* as understood by Turner and agrees with the original description.

Iswaroides Ashmead.

Jn. N. Y. Ent. Soc., VII, Mar., pp. 50-51, 1899.

Can. Ent., p. 98, 1903.

* The galaea are exerted and close together in such a manner that Ashmead in his haste mistook them for the labrum which he called "Bilobed," whereas it is broadly rounded. Ashmead was wrong in saying the lateral margins of the spine of the hypopygium is "almost straight."

Type—*Isvaroides koebelei* Ashmead (original designation.)

This genus was founded for a male and female collected by Mr. A. Koebele in Australia. The specimens are on the same pin and were supposed to be in copulation. The differences between the male and female are so great—the two sexes falling in entirely different places in Turner's table—that it may be that this female may have used this male as mode of transport and does not even belong to the same genus.* If at some later time this should be proven to be true the female would have to be placed in a new genus, the male being the true type of *Isvaroides*, occurring on the page previous to the one on which the female was described.

Male Characters.—Posterior margin of head rather deeply arcuate; clypeus much produced, narrowed to the truncate apex; labrum narrow posteriorly, truncate, with the lateral angles sharp; mandibles with a distinct inner tooth; maxillary palpi 5-jointed, the first joint shorter than the second, which is the longest, apical three subequal; labial palpi 4-jointed, no marked difference in the length of the joints; antennae fully as long as the head and thorax (including propodeum), the third joint shorter than the fourth, joints beyond the fifth distinctly arcuate, the apical joints not narrower than the basal ones; inner orbits distinctly diverging toward the clypeus; no tubercle between the bases of the antennae; pronotum not much shorter than the scutellum, sharply truncate anteriorly and slightly arcuate; propodeum gradually rounded; anterior coxae distinctly concave on the ventral aspect; tarsal claws cleft; second recurrent vein about one-fifth the length of the second transverse cubitus from the base of the third cubital cell; the spurious vein present in the first cubital cell; gaster elongate, the segments strongly constricted, not flattened; sixth ventral segment with distinct spines at its lateral, apical angles; the fifth segment with rudimentary spines; hypopygidium broader apically, tridentate, the spines slender and long, the middle one the longest, extending beyond the seventh dorsal segment, apical dorsal segment rounded apically, the lateral apical angles tuberculate.

In Turner's table the male runs to *Aclothynnus* (*Turnerella* n. n.), but the labrum is truncate with the lateral angles sharp; the maxillary palpi are 5-jointed; the antennae are fully as long as the head, thorax and propodeum; and the anterior coxae are distinctly concave on the ventral aspect.

* That this is often the case has been suggested by Mr. Turner in a letter.

Female Characters.—Head flattened, seen from above about twice as wide anteriorly as at the base, but little longer than the width in the widest part; clypeus short, at the apex truncate; mandibles without a tooth; malar space not as long as half the width of the eye; eyes in outline oval; trophi wanting but according to Ashmead (1899) the maxillary palpi are 4-jointed and the labial palpi 3-jointed; pronotum seen from above quadrate, at the anterior lateral angles tuberculate, without a median sulcus; propodeum broader than rest of the thorax, a little longer than the meso- and metanotum, the posterior face truncate; claws with an erect inner tooth, not cleft as Ashmead (1899) says; gaster a little longer than the other two parts of the insect; the second dorsal segment does not differ from the others, the apical two-thirds of the segment is depressed, more broadly so in middle, and shining, the basal part with distinct punctures; the sixth ventral segment is shining centrally, the lateral part irregularly rugose; hypopygidium a little more than twice as long as the basal width, narrowing apically where it is truncate, shining impunctate, a tuft of long hair on each side near the apex; apical dorsal segment with a convex, shining, somewhat boat-shaped area, rather wider apically and nearly three times as long as the greatest width; a long tuft of hairs from a little below the middle at the side of this convex area.

In Turner's table this runs out at category 11.

***Iswaroides kobelei* Ashmead.**

Male.—Length 11.5 mm. Head and clypeus closely distinctly punctured except on the front where the punctures are confluent; thorax similarly punctured, the punctures on the propodeum rather finer; the basal part of the segments of the gaster with distinct poorly defined punctures; when seen from behind the ventral segments appear to have small tubercles at the lateral margins; the space between the spines broadly arcuate, the middle spine curved upward apically. Black tibiae and tarsi slightly brownish; the scattered hairs silvery; wings dusky hyaline, venation black.

Female.—Length 5.5 mm. Head shining and, except for a few widely scattered punctures, impunctate; a median furrow between the antennae; pronotum finely striatopunctate; propodeum shining, slightly impressed in the middle; legs rather strongly spinose; basal part of the segments of the gaster with distinct punctures. Head ferruginous, the legs, thorax and abdomen pale piceous; hair white or gray except that at the apex of the gaster, which is rufous.

Type locality: Australia. A male and female, supposed to be in coitu, taken by Mr. A. Koebele.

Type—Cat. No. 13,205, U. S. N. M.